

Appl. No. 10/566,332
Amdt. Dated July 20, 2010
Reply to Office Action of April 20, 2010

Attorney Docket No. 81880.0136
Customer No.: 26021

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-16 (Canceled)

17. (Previously Presented) The A corrosion resistant member according to claim 16 comprising a Y_2O_3 sintered material that includes 99.9% by weight or more Y in terms of Y_2O_3 , wherein

said Y_2O_3 sintered material comprises at least metal element of AE, wherein AE is a group II element of the periodic table, and

wherein a difference in crystal grain size between the surface and the inside region of said Y_2O_3 sintered material is not larger than 30 μm .

18. (Previously Presented) The corrosion resistant member according to claim 17, wherein said Y_2O_3 sintered material further comprises any one of Si, Fe and Al.

19. (Currently amended) The corrosion resistant member according to claim 16 17, wherein said Y_2O_3 sintered material further comprises any of a group of metallic elements consisting of Si, Fe, Al and AE (these metallic elements will hereinafter be collectively referred to as metal elements M), in concentrations of 300 ppm of less for Si in terms of SiO_2 , 50 ppm or less for Fe in terms of Fe_2O_3 , 100 ppm or less Al in terms of Al_2O_3 and 350 ppm or less AE, wherein AE is a group II element of the periodic table, in terms of AEO, wherein AEO is a compound containing the AE and O.

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20. (Previously Presented) The corrosion resistant member according to claim 19, wherein the content ratio of any of the metal elements M contained at and near the surface to that contained deep inside of said Y_2O_3 sintered material is in a range from 0.2 to 5.

21. (Currently amended) The corrosion resistant member according to claim ~~16~~ 17, wherein said Y_2O_3 sintered material shows dielectric loss tangent of 2×10^{-3} or less in a frequency range from 10 MHz to 5 GHz.

22. (Currently amended) The corrosion resistant member according to claim ~~16~~ 17, wherein the carbon content in said Y_2O_3 sintered material is 100 ppm by weight or less.

23. (Currently amended) The corrosion resistant member according to claim ~~16~~ 17, wherein said Y_2O_3 sintered material has void ratio of 5% or less.

24. (Currently amended) The corrosion resistant member according to claim ~~16~~ 17, wherein said Y_2O_3 sintered material has density of 4.8 g/cm^3 or higher.

25-27. (Canceled).